



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/352,951 07/14/99 OHE

M 503.33612CX1

020457 IM22/0720  
ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON VA 22209

EXAMINER

KELLY, C

ART UNIT

PAPER NUMBER

1756

DATE MAILED:

07/20/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

# Office Action Summary

Application No.  
**09/352,951**

Applicant(s)  
**Ohe et al.**

Examiner  
**Kelly, C.H.**

Group Art Unit  
**1756**



☒ Responsive to communication(s) filed on Jun 12, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/405,887.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1756

*Should include  
of 1*

Claims 3, 6, 8, 9-11 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 13 include a structure but no definitions for the substituents have been included.

Claim 8 refers to an alkyl group which can be substituted. The claim does not provide the substitutions.

Claims 3, 6 and 8 refer to a "liquid chemical compound" or "compounded". It is not clear as to what applicant intends with this phrase. Please correct.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant's newly added claims are considered new matter as they describe "a liquid crystal display". The phrase, "liquid crystal display" without including any of the components therewith is inclusive of any type of liquid crystal display structure, including the "conventional"

Art Unit: 1756

type as referred to by applicant in the arguments to the previous rejections. Applicant's parent application, which provides the specification for the instant application, refers to the display as having a plurality of switching elements or details pixel electrodes and other components. The instant claims are inclusive of much more and are therefore considered new matter.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jubb et al., U.S. pat. No 5,698,134.

The Jubb reference discloses a liquid crystalline composite material having a compound of the formula included in instant claim 1. Jubb uses the liquid crystal composite in a display device. See claims 1, 14 and 16. The difference between the reference and the application is that the reference does not state the composite material is for use in a display device having electrode structure for generating an electric field having a components predominantly in parallel with one of the pair of substrates. The reference also does not state that the relationship between the elastic constant and dielectric anisotropy is  $< 9 \times 10^{-8}$  dyn or that the resistivity of the composite material is between  $1 \times 10^{13}$  and  $1 \times 10^9$  ohm.m. However, the same compounds would be expected to exhibit the same features. A resistivity in the claimed range would certainly be

Art Unit: 1756

expected for the compounds of Jubb '134, given the compounds are of the same formula. As for the "use in liquid crystal layer in display device having said features. The use of the composite is given little weight as the claimed subject matter are drawn to a composition. The device structure components are not given any weight in a composition claim. Therefore, it would have been obvious to one of ordinary skill in the art to make the claimed composite material because the reference teaches the same composite material.

Claims 1-5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan et al., U.S. apt. No. 5,498,365.

The Nolan reference discloses a liquid crystal composite having a liquid crystal layer having a compound of the formula of instant claim 1. See the claims. The composite is to be used in a liquid crystal display device. The difference between the reference and the application is that the reference does not give values for the resistivity of the composite material. The reference also does not state the details of the display having an electrode structure for generating an electric field having a components predominantly in parallel with one of said substrates. However, the use of the composite is given little weight in patentability determinations of composition claims. The resistivity of the material would be expected to be the same given that compounds of the formula are given by the reference are the same as the formulas claimed in the instant application claims. Therefore, it would have been obvious to one of ordinary skill in the art to make the claimed invention given the teachings of the reference.

Art Unit: 1756

Applicant's arguments filed June 12, 2000 have been fully considered but they are not persuasive.

Applicant has inserted language into claim 3 which cites "use in a liquid crystal layer in a liquid crystal display". As noted earlier by the examiner, intended use is given little weight. The claim, 3, is still drawn to a composite material. Applicant's use of the display does not matter in a composition claim. Applicant has already been granted display device claims covering the same material. Applicant's use of a known composite material is not new, novel or unobviousness. Applicant argues that in U.S.C. section 100 and 101, the classes of invention includes a new use for a process, machine or manufacture, composition of matter or material and that whosoever invents or discovers any new and useful process, machine, manufacture or any new or useful improvement thereof may obtain a patent. This is true. But it does not apply to applicant in the instant case. Applicant is not claiming a new method. Applicant is claiming a composition which has already been patented. Therefore, applicant's instant invention does not meet any of the noted criteria. Applicant improperly states that a composition placed in another device, though device is not claimed, is entitled to a patent. Applicant has received a patent for the device claims because the type of device was found unobvious over prior art. Applicant is not claiming the device in the instant application.

Applicant further argues that the instant application is drawn to an active matrix type liquid crystal display. Applicant does not, in the instant claims present an active matrix type display. Applicant has chosen to use generic language which has earned applicant a rejection.

Art Unit: 1756

Applicant refers to the instant specification but has chosen to write the claims in all encompassing language, which includes the prior art.

Applicant continues to argue that the instant application is drawn to a different type of apparatus. Applicant's claims are for the most part drawn to a composite material, not an apparatus. The different type of apparatus will certainly be considered in the apparatus (device) claims but not in the composite claims.

Applicant argues that the Jubb and Nolan references disclose a conventional type of liquid crystal display. Again, applicant has chosen to refer to his display in his claims as a liquid crystal display device. Therefore applicant's display appears to be as conventional as the one Jubb and Nolan claim. Further, Jubb and Nolan are not used to reject any device claims, only the composite (composition) claims earlier presented as claims 1-5. Applicant uses the same compounds as Jubb and Nolan. Applicant has not shown that the resistivities cannot be the same. Applicant presents the same type of compounds having the same structural formula. Applicant has not explained why the same type of compounds having the same formulas would be expected to behave differently. Again, the examiner is not giving considerable weight to device information as these are not device claims.

The examiner is not relying on an obvious to try situation as applicant asserts. Applicant had presented composite claims which include the same type of compounds that Jubb and Nolan make a composite material from. Applicant's broad language includes Jubb's and Nolan's composite materials.

Art Unit: 1756

Applicant argues that the ratio of d/l now included in claims 1 and 7 set the instant application aside from the references. Applicant's claims are drawn to a composite not a device.

Applicant argues that the specification clearly points out that the resistivity and elastic constant and dielectric anisotropy represent properties which are contrary to the conventional display. If that is true, why has applicant chosen to include "conventional " display language in his claims. The argument is not convincing.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kelly whose telephone number is (703) 308-0449. The examiner can normally be reached on Mondays through Thursdays.



Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

C.H. Kelly

Art Unit 1756

CH Kelly